

REMARKS

In the Office Action, claims 1-4, 6, 7, 9, 11-14, 16 and 18 were rejected as anticipated by U.S. Patent No. 6,994,092 to van der Burg et al. Claim 5 was rejected as obvious over van der Burg in view of U.S. Patent No. 6,443,972 to Bosma et al. and claims 8, 15 and 17 were rejected as obvious over van der Burg in view of U.S. Publication 2002/0058911 (Gilson).

The courtesy extended by Examiner Shaffer in the telephone conversation of August 20, 2007 with the undersigned is acknowledged with appreciation. During the conversation, the van der Burg patent and the claims of the present application were discussed.

The van der Burg patent is directed to a method of occluding a left atrial appendage. The occlusion device is placed within the left atrial appendage or across the opening of the appendage. (col. 3, lines 40-42) The device includes structure such as occluding member 11, 42, 52, 61, 107 or 15 which forms a barrier. As explained in column 9, barrier 107 is disposed within an area bounded by the outer rim 104 and is positioned to prevent the passage of embolic or other material to or from the LAA. Other embodiments of the occlusive member include an inflatable member and polymer mass. Figures 20 and 21 illustrate an apparatus for closing off a body cavity. In fact, van der Burg discusses with respect to occlusion device 10 that without a stabilizer, to resist compression of the LAA, normal operation of the heart "may cause compression and resulting volume changes in the LAA, thereby forcing fluid past the occluding member 11 and inhibiting or preventing a complete seal." (col. 14, line 66 - col. 15, line 2). Thus, the stabilizer is provided to minimize leakage. Figs 30-35 illustrate alternate embodiments of the occlusion device.

The Examiner in his Office Action and telephone conversation referred to Figure 35 of van der Burg. However, as pointed out during the phone conversation, the converging region of Fig. 35 is not radially inward of the mounting section. To further define this location, claims 1 and 12 have been amended to recite the tubular portion and recite the relationship of the end point or the edge with respect to specified portions of the mounting section. Also, the claims (1, 12 and 18) have been amended to recite non-occluding filtering sections which direct particles toward the center and allow blood flow therethrough.

More specifically, claim 1, as amended, recites non-occluding filtering sections for capturing particles while enabling blood flow therethrough. The first converging region is positioned radially and axially inwardly of the first end of the mounting section which contacts the wall of the vessel and the second converging region is positioned radially and axially inwardly of the second end of the mounting section which contacts the wall of the vessel in such expanded position such that the first and second converging regions are a closer axial distance to the center point than the ends of the mounting section contacting the vessel wall and a proximalmost end point of the mounting section is proximal of a proximalmost end point of the first converging region and a distalmost end point of the mounting section is distal of a distalmost end point of the second converging region, and the distalmost edge of the first tubular portion is proximal of the distalmost end point of the mounting section which contacts a wall of the vessel and the proximalmost edge of the second tubular portion is distal of the proximalmost end point of the mounting section which contacts the wall of the vessel to thereby direct particles to the center of the filter in the path of greater blood flow through the filter.

Claim 12 recites non-occluding filtering sections wherein in the second configuration the filtering sections are each positioned a closer axial distance to the center point of the filter than the first and second ends of the mounting section such that the proximalmost end point of the mounting section is proximal of the proximalmost end point of the filtering section and the distalmost end point of the mounting section is distal of the distalmost end point of the filtering section, and a first axis transverse to the longitudinal axis and passing through the distalmost edge of a first tubular portion from which the struts of the first filtering section extend is proximal of a second transverse axis passing through a distalmost end point of a parallel component of the mounting section and a third axis transverse to the longitudinal axis and passing through the proximalmost edge of a first tubular portion from which the struts of the second filtering section extend is distal of a fourth transverse axis passing through a proximalmost end point of a parallel component of the mounting section to direct particles to the center of the filter in the path of greater blood flow through the filter.

Claim 18, as amended, recites a non-occluding filter with tubular portions and converging regions which direct particles to the center of the filter in the path of greater blood flow through the filter.

Van der Burg does not disclose or suggest a filter wherein both converging (and filtering) ends are positioned radially and axially inwardly as defined in the claims

As explained on page 10 of Applicants' specification, the greater the distance between V1 and V2 (see Figure 5), the greater the angle of the angled portion, and the more the particles will be directed to the center of the filter in the area of greater blood flow to better dissolve the particles.

The Examiner stated in the telephone conversation that the occluding member of Figure 35 can be expanded so the portions 190 and 192 move inwardly. However, there is no teaching or suggestion to make such modification. Moreover, even if Fig. 35 was modified as the Examiner suggests, the curved portions would then move outwardly to a more straightened position. Also, there is no indication that the occluding device would withstand such forces. The Examiner cannot ignore the Applicants invention of providing a filter of sufficient rigidity and stability which has angled filtering portions to direct particles toward the center as the filter portions are positioned radially inwardly. No such structure is taught or suggested in the prior art, nor does the prior art contemplate (or appreciate) the unique invention elements of Applicants filter as recited in claims 1, 12 and 18.

In view of the foregoing, withdrawal of the rejection of claims 1, 12 and 18 as anticipated by van der Burg is respectfully requested. Claims 2-9 and 11 depend from claim 1 and claims 13-17 depend from claim 12 and are therefore believed patentable for at least the same reasons that claims 1 and 12 are believed patentable. Further, with respect to dependent claims 5, 8 15 and 17, neither Bosma nor Gilson satisfy the deficiencies of van de Burg. Note also with respect to amended dependent claim 11, none of the references alone or in combination teach or suggest a portion of the strut parallel to the longitudinal axis having a first width and an angled portion of the strut having a second width less than the first width. Note also that amended

dependent claim 15 recites the longitudinal struts are twisted out of phase.

Applicants respectfully submit that this application is now in condition for allowance. Prompt and favorable reconsideration of the present application is respectfully requested. The Examiner is invited to contact the undersigned should the Examiner believe it would expedite prosecution.

Respectfully submitted,

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